

*To Dr. Rutland, with the Authors Rec-
regards.*

CASES

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OF

VASCULAR TUMOUR

OF

THE URETHRA,

WITH REMARKS.

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CASES OF VASCULAR TUMOUR OF THE URETHRA.

THE object of the following communication is to give, in a connected form, a full account of a class of cases by no means unimportant or uninteresting, and of which individual examples have probably come under the observation of most experienced practitioners. To furnish this I venture not to depend on my own observations alone, but avail myself of the recorded experience and observations of many others. The inquiry into this subject which I instituted for my own information I have felt to be both interesting and profitable, and it is my desire that the result as here evolved may be so to others also.

That morbid growths, answering to the title of "Vascular Tumours of the Urethra," have long been known, without referring to an earlier date, we may learn from the two following quotations from eminent London surgeons of the last century.

Thus Mr Sharp wrote:¹—"That small excrescences may occasion violent disorders in so tender an organ as the urethra, I have seen a notable instance in the urethra of a virgin, where they grew in small quantity upon the orifice of the meatus urinarius, and for many

¹ Critical Inquiry into the Present State of Surgery. By Samuel Sharp, F.R.S. London, 1750. p. 168.

months had produced most excruciating torment, which continued till I had totally extirpated them."

And Mr Broomfield¹ recorded his acquaintance with the disease in the following words:—"I make no doubt that many professors of surgery have seen as well as myself fungi of a considerable length from the orifice of the urethra both *in men* and women. I have known several instances in the female sex whose cases have been supposed to be nephritic, which on examination of the parts affected have been found to be owing to those fungous excrescences of the urinary canal, and have yielded to the application of the bougie, though they had returned frequently after they had been taken off with scissors."

Though these authors have omitted to give any particular description of the growths that they had met with, there is enough to be gathered from their short statements of the general features and symptoms of the malady to enable us to draw a fair inference that they were the same productions as were at a much later period described by Sir Charles Clarke as "The Vascular Tumour of the Orifice of the Meatus Urinarius."² To Sir Charles Clarke belongs, however, so far as I know, the merit of giving to these growths a "name," and to the profession a good description of their ordinary characters and symptoms.

"The tumour," he says, "is *seldom firm*; of a florid scarlet colour; if violence be offered to it, blood of the same colour is effused; it is somewhat *granulated*, exquisitely tender; appears on accurate examination to shoot from the inside of the urethra; seldom acquires a large size; its attachment is slight, and it is so moveable as to appear almost like a detached body lying upon the part. It gives rise to great suffering during micturition, and to a vaginal discharge. It is common to the married and the unmarried; most frequent in the young." The tumour was never seen by Sir Charles Clarke "in a person above the middle age." He notices that a similar kind of disease existed occasionally "in the interior of the canal, giving rise to the symptoms of tenderness on pressing the urethra, and a general swelling of the part;" and refers to such a case successfully treated by Sir James Earle by means of large bougies.

In most systematic works on diseases of the genito-urinary organs, and especially in those which treat of the female organs, these tumours are described; and in those published since Sir Charles Clarke's work, the name given by that author is adopted.

Thus Burns says:³—"Excrescences may, notwithstanding the opinion of Morgagni, form in the course or about the orifice of the

¹ Broomfield's Chirurgical Observations, &c. Vol II., p. 296.

² Diseases of Women, &c. By Sir Charles Clarke. Third edition, p. 303.

³ Principles of Midwifery, including Diseases of Women and Children. By John Burns. Sect. 23, p. 70. Fourth edition.

urethra, and generally produce great pain, especially in making water, on which account the disease has been sometimes mistaken for a calculous affection. The agony is at times so great as to excite convulsions; and it is not uncommon for the patient to have an increase of her sufferings about the menstrual period. The tumour is vascular, florid, moveable, and exceedingly tender. When excrescences grow about the orifice of the urethra, they are readily discovered; but, when they grow high up, it is much more difficult to ascertain their existence." Dr Baillie¹ says they "cannot be known but by the sensation of a catheter passing over a soft body." Burns refers to many interesting cases, hereinafter to be cited. The late Dr David Davis makes mention of these tumours, and gives a most interesting and complicated case in illustration (see Case 9). Sir B. Brodie² limits their size to that "of a pea, or horse-bean." He has met with many instances of them.

Dr Ashwell³ thus treats the subject:—"This is by no means an unfrequent affection of the mucous membrane of the urethra. It usually attacks the young, whether married or single; is very rarely seen after the cessation of the menses; consists of a small *granular* tumour, generally pediculated and moveable, attached to one part of the margin of the meatus, or just within the urethra, *whose two prominent characteristics are great vascularity and exquisite sensibility*. Sometimes these growths are not moveable, but appear like several raised coalesced granulations, or occasionally two or more isolated independent ones may be seen near together. Every now and then they extend partially along the urethra, and may even be located at the neck of the bladder. They are covered by a delicate *pale*⁴ mucous membrane, which is broken on being touched during examination, and blood exudes from the soft, feeble, and injected capillaries. If they interrupt or come in contact with the stream of urine, the act of passing water causes intense pain, and this is usually the first and most constant symptom of the complaint. After a time the urethra and bladder become irritable, and the frequent desire to micturate is suppressed by the dread of the pain which it excites. Sexual intercourse is intensely painful, and is therefore obliged to be suspended. Walking exercise is attended with suffering, and in fact any movement of the vulva, by slightly displacing or pressing upon the growth, produces instant pain." Leucorrhœa, and various sympathetic pains of the pelvis, loins, &c., are mentioned as accompanying the tumour.

Mr Safford Lee⁵ has met with these tumours "in the young and

¹ Morbid Anatomy. P. 321.

² Lectures on Diseases of the Urinary Organs. Third edition, p. 92.

³ Ashwell on the Diseases of Women. Second edition, p. 710.

⁴ Dr Ashwell, in this description of the *covering* of the tumour, differs from all others, who speak of it as "florid" in appearance.

⁵ Tumours of the Uterus and its Appendages.

old." The largest example he had seen (as large as a date) was in a woman above forty; and he had one under treatment much older.

He notices the occasional participation of the nymphæ in similar disease, its occasional extension along the urethra to the bladder, and also that the tumour is frequently divided at its extremity. Amongst the symptoms to which the tumour gives rise, he says, "One patient I saw had pains down the inner side of the thighs to the knees; and Professor Simpson told me of one case where pains in the soles of the feet were complained of."

Boivin and Dugés¹ describe them as "fungoid tumours," occasioning great inconvenience in micturition—formed on the meatus, the borders of which orifice concur irregularly to the formation, rounded, though often granulous, varying in size from that of a pea to a cherry. They refer also to the experience of Madame Lachapelle, and of Cullerier and Dubois in similar cases. In the Atlas to their work (Pl. XL., figs. 3 and 4), are representations of these morbid structures.

It is evident, from the general, and, still more so, from the particular descriptions of these growths given by the authors already cited, that the "excrescence is in general granular or tuberculated on its surface, and possesses considerable firmness." This is not, however, uniformly its character; it is sometimes *perfectly smooth*, and of great delicacy in structure, as the following cases, which I have met with, will show. Occasionally, I am informed, they scarcely exceed the solidity of jelly; but I have never seen them so fragile as this. The following are instances of the smooth variety:—

CASE I.—Mrs L., aged 52, married, the mother of a numerous family, short, slight, and of fair complexion, an infant-school mistress, and in a state of good health, came under my care in September 1845. For 15 months previously, she had had "something growing near the water passage." She first became aware of its existence from the pain she experienced in intercourse with her husband, and which has increased so much as to compel entire abstinence therefrom for sometime past. Since she became subject to these pains, she has also had a vaginal discharge. She has been under the care of two medical men. By the advice of the first, who had not inspected the parts, nitrate of silver was regularly applied to the growth, occasioning such excessive pain that she was obliged to leave it off, without experiencing any benefit. The second, an eminent obstetric physician, made an ocular examination, and prescribed a lotion which was equally inefficient. When I saw her, she could neither walk, stand, or sit in comfort from the pain, which was much augmented every time she made water. I examined the vulva, and found, growing from the lining of the urethra, the orifice of which it occupied, tilting at the same time under its edge into the vagina, an excrescence about half an inch long, *perfectly smooth*, of a ripe red cherry colour, and *very delicate* texture, pediculated and kidney-shaped, the pedicle being attached a very little within the orifice. It was so sensitive that the slightest touch gave acute and excruciating pain. There was also a somewhat abundant muco-purulent vaginal discharge. After a week's delay in consequence of the fears of the patient, I applied a ligature around the excres-

¹ Diseases of the Uterus and its Appendages. By Boivin and Dugés. Translated by Hemming. p. 542.

cence, in the following manner: the patient being placed in a favourable position, and the labia and nymphæ separated by an assistant, the excrescence was drawn forwards by means of a pair of artery forceps, so as clearly to see the attachment of the pedicle; through the base of the latter and a portion of the sound membrane around it, a needle, armed with silk, was carried; the needle was then cut off and the four ends of the silk were tied, two and two, around the base of the pedicle, involving in the noose a portion of nearly the whole thickness of the urethra. The ligature was applied on the 23d of September; on the 25th it was thrown off with the shrivelled excrescence. The part appeared likely to heal well. The patient was free from pain, and had been comfortable and able to pass her water easily from the time of the operation.

December 4.—Ten weeks after this she again applied to me suffering as before the operation, but less severely. A little granulation-like excrescence had grown up in the old spot, and occasioned the inconvenience. I then applied a drop of nitric acid. This gave severe pain, but appeared completely to have destroyed the growth. The patient soon became easy, and the part healed.

In December 1846, a year after the application of the acid, and fifteen months after the ligature, I heard from the patient that she continued free from her malady.¹

CASE II.—S. B., a poor married woman, æt. 56, enjoying excellent health, especially the last few years, since “the change of life,” consulted me, December 10th, 1846. For four months previously she had been suffering excessive pain in micturition, and almost incessant desire to make water, the dread of which was at times so severe as to cause a retention of the urine. She has sometimes fallen on her knees in the street in very agony when the desire has come on. These symptoms have been accompanied for the same period of time by severe pain in the loins, thighs, and lower part of the belly. When water is passed, she describes it “as cutting her through.” Walking and sitting are both painful; she is only easy in the supine position with the thighs separated.

On examination, I perceived in the orifice of the urethra, a small purplish red body, apparently very vascular, of very delicate texture, and perfectly smooth surface—it filled the orifice of the urethra, and projected up towards the pubis. To the touch it was excessively tender. Its figure was that of a young kidney bean—its external border, convex, was about three-fourths of an inch long; its internal one, concave, was attached by a narrow pedicle to the lining membrane of the urethra a little within the orifice. There was some increase of the vaginal secretion.

Next day I applied a ligature to this tumour in the same way as in the preceding case. In three days the excrescence and ligature came away. The orifice of the urethra then appeared generally in an over-vascular condition. I feared its becoming involved in similar disease, and applied the stick of nitrate of silver freely within the canal. On two subsequent occasions I applied caustics. On the first potassa fusa, and on the second the pernitate of mercury, not feeling sure that the morbid state was quite got rid of. Subsequently to this, as soon as the parts would bear it, bougies were passed every other day for a month. From the time of the application of the ligature she never suffered any pain of consequence, and made water easily. A short time after applying the caustics there was a little scalding felt in micturition, but nothing more.

Nine months after, the patient called on me to say that she had been entirely cured.

¹ In reading a paper on this subject recently before the Harveian Society, I learned that this patient had suffered again from reproduction of the excrescence, and had had it twice removed by other practitioners. I am indebted to the gentlemen who took part in the discussion for much information on these tumours, which is embodied in this essay.

CASE III.—Occurred in the person of a young woman, a prostitute, who was under my care for primary syphilis and vaginal discharge. The excrescence was very like the last, but *far less sensitive*. I did not think it right to interfere with it, whilst the syphilitic sores existed, for fear of inoculating a fresh place, and before they were quite cured. I lost sight of the patient, and consequently the opportunity of doing anything to the tumour.

CASE IV.—I was called (November 7th, 1848) to see Mrs C., living near the Middlesex Hospital. She was said to be suffering from sickness and vomiting, which had lasted two days, and was connected with a hernia. On visiting her, I found her suffering from bilious vomiting and constipation, the latter being almost an habitual state—her tongue was furred, and her pulse a little quickened. Her belly not at all tender or distended. She had been the subject of femoral hernia for many years, but had always kept the bowel in place by a truss—it was not at this time protruding. She was a nervous excitable person, fifty-five years of age, and a widow. She had had several children, but had ceased to menstruate some years. She complained of great pain in making water. It had lasted two years, and was equally bad whatever the state of her urine. She had never passed any blood. Walking occasioned severe pain in the vulva, in consequence of which she had confined herself to the house for many months previously. She had consulted two medical men, and taken various medicines, without benefit; and with the hope of procuring some relief from her sufferings, had entirely given up all stimulating food and drink. She had never been examined, or had any local treatment to the painful part.

I prescribed a few grains of calomel, to be followed a few hours after by a black draught, and directed that some urine should be kept for my next visit.

The bowels having been freely opened by the medicine given, the sickness and vomiting ceased, and the tongue became clean, but the pain in making water continued. I found the water kept for me at my next visit clear, of an amber colour, and quite free from deposit. On examining the vulva, however, which I obtained permission to do, I found within the orifice of the urethra a small bright scarlet body, of very delicate texture, highly vascular, and perfectly smooth, not much larger than a barley corn, attached to the lining of the under surface of the canal, from which, by pressing back its borders, the excrescence could scarcely be made to protrude. It was scarcely pediculated, but grew up like a large granulation. The borders of the orifice of the meatus had a similar florid appearance. The parts were excessively tender to the touch. There was little or no increase of the vaginal secretion.

A ligature was applied to the excrescence as in the preceding cases, but it was necessary to dilate the urethra, in order to expose the growth and enable me to transfix its base. This was effected by passing a pair of forceps into the canal, and separating the blades. After the ligature was secured, the borders of the orifice were rubbed with potassa fusa; a sponge full of vinegar being used immediately to prevent the caustic from spreading.

The urine was passed involuntarily that day and part of the next; and the evening succeeding the operation it was necessary to give a dose of laudanum, in consequence of the severe pain arising from the irritated parts.

The excrescence and ligature were thrown off in a few days; a considerable puriform discharge from the urethra and vagina was excited by the operation, but it readily yielded to the application of the goulard lotion and cold ablutions. She is now perfectly free from the complaint; walking and passing her water quite easily.

It is rather remarkable that of the four preceding cases, three should have occurred in patients of advanced years, who had ceased to menstruate. Since writing the above, I have been consulted by my friend, Mr Preston, on another.

CASE V.—In this case, the patient, a married female, forty years of age, who has had one child, had for four years suffered so severely in sexual intercourse, that it was almost intolerable to her; and the disagreement between herself and husband arising out of the circumstance, had nearly occasioned a separation between them. On inspecting the vulva, a small florid excrescence, similar to those previously described, was seen within the orifice. It was excessively tender, but what is remarkable, *it had never occasioned pain in micturition*. There was some increase of the vaginal secretion. Mr Preston removed the excrescence by twisting it off at its root, and then applied the potassa fusa.

This excrescence has been the subject of a microscopic examination by my friend Mr Quekett, whose description of it will be given in another part of this paper.

The following cases, from various sources, will present to the reader some interesting varieties of the morbid productions now under consideration.

CASE VI.¹—A little girl, eleven years old, came under the care of Mr Hughes, in 1760. She had suffered for three years from severe pain in micturition, and occasional darting pains as from penknives running into the part. She was unable to take horse exercise without inconvenience, but felt no inconvenience in walking.

She had been examined previously by another medical man, and by him, being supposed to have *prolapsus uteri*, had been ordered to wear a bit of cork as a pessary. This occasioned intolerable pain, so that it was obliged to be left off, and a bolster of linen was substituted.

On examination of the parts, a red softish substance of spongy texture, irregular jagged surface, sore to the touch, and giving issue to a little bloody serum, was found growing from the whole circumference of the orifice of the urethra, and protruding from it about half an inch. The urethra passed through the body of the excrescence, which was contracted at its attachment, but expanded externally. Mr Hughes removed the growth by excision. *Brisk hemorrhage* followed, but stopped of itself in a few minutes. A slight reproduction of the tumour occurred after some days, but its growth was arrested by the application of nitrate of silver.

Retention of urine followed the operation, and compelled the use of the catheter for some days. Bougies were afterwards introduced daily, and a complete and permanent cure was effected.

CASE VII.—Occurred to Mr Jenner of Painswick, in Gloucestershire, in 1776.² M. B., aged thirty, had for fifteen years suffered from great and constant “irritation to make water.” The desire returned by day every ten or fifteen minutes, and could not be put off; by night it left her scarcely an half-hour’s interval for rest. As the disease came on soon after the commencement of the menstrual function, and that had been irregularly discharged, it was supposed to depend on this irregularity, and a variety of medicines were accordingly given without benefit. Four years before she applied to Mr Jenner, she had discharged one day about four ounces of blood after voiding her urine, and then her case had been pronounced a “stone in the bladder.”

When Mr Jenner saw her, he found, on examination, a fungous excrescence filling up the orifice of the urethra. He immediately put a ligature around it, and drawing it forward, snipped it off with a pair of scissors at its origin, which was about a quarter of an inch within the orifice.

Four months after the operation, when the report was published, there had been no return of the disease.

¹ Med. Facts and Observations; vol. iii., p. 26.

² London Med. Jour.; Vol. vii., p. 160. 1776.

CASE VIII.¹—Mr Warner relates the following interesting instance :—“ A virgin, æt. twenty-seven, had suffered *from infancy* from frequent desire to make water, which she voided by drops, and with excessive pain. The pain and irritation had been frequently so great, as to cause convulsions, and to prevent her from gaining her livelihood. It was much increased at the menstrual periods, especially if the customary discharge did not appear. On dilating the urethra with a female catheter, two excrescences were discovered arising opposite each other, near its hither extremity, each as large as a silver penny-piece, and resembling the valves of a vein in their situation. Their colour was red, and their texture spongy, and they consisted of *a number of fibres*, as appeared upon examination after their removal, which was effected by dividing the urethra a little to its left side with a pair of scissors, and then, when the excrescences were exposed, snipping them off at their base. There was no immediate hemorrhage. *Afterwards it was severe*, but stopped of itself. The patient recovered without a bad symptom ; and five months afterwards she was seen by Mr Warner quite free from the disease.

The same author relates the following case, in which a pediculated vascular tumour, appearing at the orifice of the urethra, was found to take its origin at the neck of the bladder.

CASE IX.²—A young woman strained herself by endeavouring to lift a heavy weight, and was immediately seized with pain in the small of the back, and a total suppression of urine, which lasted five days, when the catheter had to be used. During the suppression she had an acute fever, and for eighteen or twenty hours before the water was drawn off, she discharged by mouth a great quantity of saltish water tinged with blood. Three years after this, she consulted Mr Warner. From the time of the accident she had never made water without the catheter, and on several occasions its introduction had occasioned much loss of blood. Mr Warner examined the urethra and bladder with his forefinger, which he passed with difficulty through the canal. He discovered a considerable tumour, which seemed to be of fleshy consistence, and took its rise from the lower part of the bladder near its neck. Upon the patient's straining to make water when the bladder was full, the tumour protruded a little from the meatus, but on ceasing to strain it presently returned. It had maintained its present appearance from the time it was first noticed, and had been punctured eighteen months before in the expectation of its containing fluid. The patient was purged, and then the following operation was performed : The tumour being made to protrude by straining, was prevented from returning by ligatures passed through its substance by the help of a crooked needle ; and an effort was made to draw it down through the orifice of the urethra. This being impossible, Mr Warner divided the urethra, by cutting it upwards about half way to the bladder, and then the tumour being pulled forward, he was enabled to pass a ligature around its base, which was *very large*. For three days after, much pain in the abdomen was felt ; on the sixth day the ligature dropped off. From the day of the operation the water was voided naturally. The tumour was about the size of a turkey's egg. Recovery was complete.

CASE X.—Is recorded by the late Dr David Davis.³ A lady, fifty years of age, of firm constitution, and the mother of several children, had suffered twenty-five years from distressing pains of the urethra, and had had an excrescence growing from the part all that time. It gave rise to dyspeptic symptoms, to incessant calls to empty the bladder, and occasionally to tremendous paroxysms of abdominal and uterine pains, but not to any morbid secretions of the vagina. On examination of the parts, the orifice of the urethra was found

¹ Warner's Reports and Cases in Surgery, p. 309.

² Warner, *op. cit.*

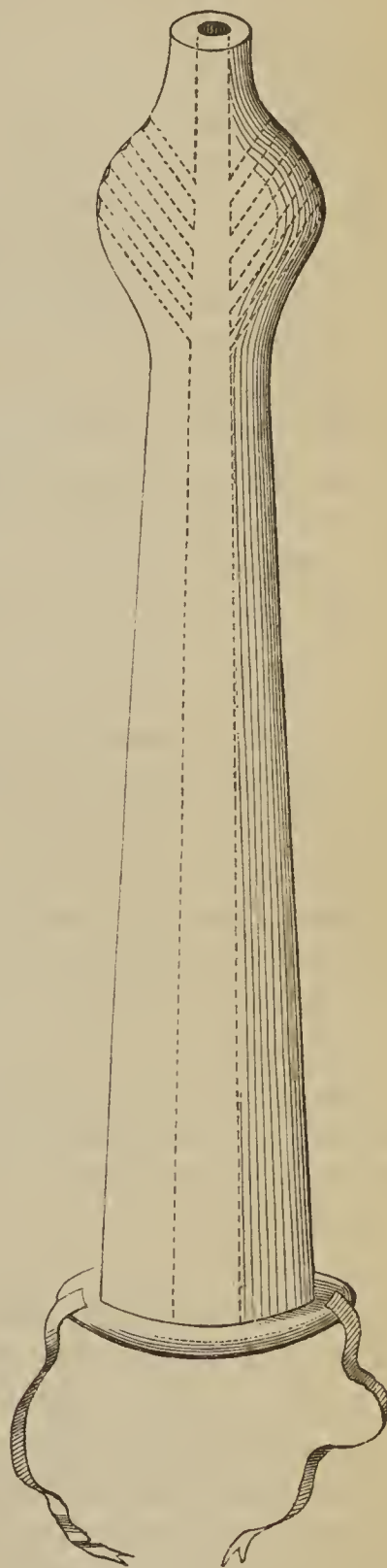
³ Obstetric Medicine. By David D. Davis, &c. Fourth edition, p. 86.

to be garnished with a bunch of fungoid excrescences, which, conglomerated together, amounted to about the size of a small raspberry—its colour that of arterial blood, not painful, nor even sensible to the touch, bleeding rapidly on pressure. The surfaces immediately contiguous were exceedingly sensitive, but free from any change of colour. The difficulty of passing a catheter into the bladder, and the sensation of its being obstructed by successive obstacles, gave rise to the suspicion of similar disease in the urethral passage. The external tumour was removed “by abscision.”

Bougies were then introduced daily, of augmented size, and retained some time in the canal; in about a month they had caused the expulsion of numerous bodies—fragments of similar character to the tumour removed, and the urine could be held and voided with greater facility than for years before. Finally, the finger passed into the dilated urethra and bladder, detected around the neck of the latter the existence of a circular ring, of structure foreign to the part, about half an inch broad; its superior limit was tolerably defined, and nearly equal at every part. The daily use of bougies was continued, but as they could not be retained constantly, in consequence of the expulsive efforts of the bladder, a hollow bougie, with a bulbed end, something like a drumstick, was invented; and this, with difficulty introduced at first, was worn for eight days constantly, except when removed twice to be cleaned. After each withdrawal of the bougie, large portions of the excrescence were expelled; and at the end of eight days, the whole mass was gone.

From what has been now advanced, it will be seen, 1. That the urinary passage of the female is, in its whole extent from the external orifice to its termination in the bladder, liable to become the seat of excrescences; and that though the orifice is the most frequent seat of these growths, they are not very uncommon in the interior of the canal.

2. Though entitled to one common appellation, from their vascularity, they differ much in some other respects. Thus, in size, they may vary from a simple large granulation to a tumour as large as a date,¹ or, as in the case related by Mr Warner (case 9), as a turkey's egg; in consistence, from something scarcely exceeding the solidity of jelly to a considerable degree of firmness; in external surface they may be perfectly smooth or granulated; in form flattened and sessile, rounded, and growing irregularly from the whole margin of



Dr Davis's Instrument.

¹ T. S. Lee, loc. citat.

the meatus, or pediculated and pendulous; sensitive to the highest degree, or as in one instance quoted (case 10), not even sensible. Their sensibility bears no relation to their size, unless it be in the inverse ratio; the smallest excrescence certainly gives equal pain and distress with the largest.

3. Little has been made out in relation to the intimate structure of these growths. Boivin and Dugés call them cellulo-vascular. Mr T. S. Lee says they "are entirely made up of vessels, and their connecting cellular tissue." Warner says one of his, which he examined, "consisted of a number of fibres," and the excrescences removed by Dr Davis, examined in water, showed a fibrous structure.¹ The following is Mr Quekett's description of the excrescence (case 5), which he has kindly examined for me. "The specimen was of an oval figure, about two lines in length in its long diameter. It was white, and had numerous small confervoid filaments attached to its outer surface, from having been some time in water. A thin slice from the external surface, when examined microscopically with a power of 200 linear, exhibited the same structure as ordinary cuticle; the epithelium of the outermost layer being composed of flattened scales, whilst the cut surface exhibited the same kind of cells, more condensed, and firmly adherent together; a vertical section through the middle of the mass showed several papillæ of various sizes, which were very vascular, and surrounded by an investment of cuticle, which, with the papillæ, made up the entire mass of growth; at the part where the papillæ were situated, the growth was smaller than at the opposite extremity, as though it had been attached by a constricted neck or pedicle. The papillæ, no doubt, were largely supplied with nerves, as well as blood-vessels, but their presence could not be detected by the microscope. The growth may be said, then, to consist of hypertrophied papillæ, invested with a thick layer of cuticle, which projected from the general surface of the mucous membrane in a wart-like form." This connection with the papillæ will serve to explain the extreme sensibility generally possessed by these tumours.

4. They are non-malignant, though, according to Boivin and Dugés, "they may doubtless become cancerous."

5. They have, for the most part, an extreme tendency to be reproduced, when cut off or otherwise removed; but this is hardly a constant character, and may generally be counteracted.

6. They are common to the married and unmarried, and to all ages from infancy to old age, but most frequent, probably, during the period of activity of the generative system.

7. They have been ascribed to syphilis, excessive venery, and masturbation, but I cannot discover any good ground for admitting

¹ I think it very unlikely that any of these growths, from their situation, mode of growth, and general characters, possess any true *fibrous tissue* in their texture.

either of these causes, believing that they are causes only in the light of being occasionally coincident with effects.

8. The most constant symptom of the disease is pain in the urethra, greatly augmented during micturition,¹ which is sometimes suppressed by dread, and sometimes excessively frequent from the extension of the irritation to the bladder; augmented, also, by all movements of the vulva, by coition, and during the menstrual flux. A muco-purulent discharge from the vagina accompanies the growth, and there are occasionally severe sympathetic pains in the loins, pelvis, hips, and inside of thighs, and a discharge of blood leading to the idea that the case is one of calculus of the bladder. To prevent this mistake, which has been often made, whenever the more common symptoms are present, and *not accounted for by a morbid condition of the urine*,² careful examination of the vulva should be made before an opinion is given.

9. The external characteristics of these growths are sufficiently clear to prevent their being confounded with other swellings,—as verrucae, prolapsus of the bladder, eversion of the mucous membrane of the urethra, or varicose tumour of this part, and still more with prolapsus uteri; a mistake which, in one instance, we see has nevertheless happened—Case 6th.

10. The treatment required is strictly local, and consists of such means as entirely destroy the growths and are most likely to prevent reproduction. These are cauterisation, caustics, astringent lotions, excision, ligature, and pressure by bougies.

They are all applicable in different cases. If the growth is single or double, and not attached by a very broad base, it may be removed either by excision or ligature. The former has, perhaps, the most numerous advocates, and among them Sir B. Brodie and Dr Ashwell, and was practised in several of the cases cited in this paper. To the latter I give a decided preference, along with Sir Charles Clarke, in consequence of the serious hemorrhage that often follows excision.³ In either case, a powerful caustic should be applied to the point from which the growth has been removed, to prevent its reproduction.

The actual cautery or caustics are only applicable primarily to very small excrescences near the orifice, and to those which answer to the description of Dr Ashwell,—*i. e.* having the appearance of several raised coalesced granulations, or two or more isolated ones; as a secondary means, they are applicable, as before mentioned, after excision or ligature. The more powerful the caustic, if proper care be used to prevent its spreading, the less suffering it produces, and the more quickly it effects its purpose. Potass, nitric acid, and per-

¹ See, as an exception, case 5.

² See Appendix, p. 15.

³ See cases 6 and 8, and T. S. Lee, *op. cit.*, where a case is referred to. Mr B. Philips recently informed me, that he had lately seen very severe hemorrhage follow the excision of one of these growths.

nitrate of mercury, are the best. Nitrate of silver gives excessive pain, and is slow and inefficient.

Bougies, like caustics, have a primary and a secondary use. Primarily, they form the only efficient means of treating those growths which affect, in a general manner, the interior of the urethra, and their use is well illustrated in Dr Davis's case (Case 10); secondarily, they are, perhaps, when regularly introduced and worn for some considerable time, as useful as caustics, if not more so, in preventing reproduction of a tumour that has been removed. The pain which they occasion, in their primary use, must be met by anodyne local applications, and now-a-days anæsthetics may be brought into use for this purpose. In their use, as secondary means, they do not occasion suffering.

By one or all these means, this most distressing affection may, in general, be effectually cured; even the most formidable cases, as we have seen, may yield to bold and persevering endeavours, as illustrated in cases 9 and 10. The latter does great credit to the ingenuity and perseverance of the physician who records it, and the former to the ability with which an important operation was devised and carried out. The successful result, in both cases, leads me to hope, that some fungoid tumours of the bladder, especially in the female, generally supposed to be beyond the reach of medicine or surgery, may yet be made amenable to the latter at least. The ready distensibility of the female urethra admits of the examination of the bladder by the finger without difficulty, and thus can be ascertained the size, form, and position of any foreign body in its cavity; and the question of treatment can then be decided, whether, as in Mr Warner's case, the urethra should be divided and a ligature be placed around the growth; or it should be excised; or, as in Dr Davis's, some kind of bougie should be used; or, finally, it should be left to take its course. Mr Warren,¹ it appears, contemplated the excision of a fungous tumour of the bladder, in a case in which he was consulted, and he proposed to himself one of two plans,—viz., either “to make an incision through the vagina, and cut away the diseased portion of the bladder; or to cut open the urethra on its side, and, introducing a finger to examine the tumour, to seize it with a hook, draw it out as much as possible, and excise it.” As he could find no precedent for either method, and dreaded, from the one an incurable fistula, and from the other effusion of urine into the cellular membrane about the bladder, he declined urging the operation. The patient, a delicate lady, æt. fifty, lingered about eight months, and dying in the country, no examination of the body was made. To his first plan the objection suggested is valid; to the second, I think not; and probably, had he been acquainted with Mr Warner's case, he might have embodied his idea in practice,—it may be, unsuccessfully; but the subject, I think, merits attention.

¹ Warren on Tumours, p. 393.

From any known treatment of such cases there is no hope of cure, and but little, if any, of benefit; they end almost uniformly fatally, either from the effects of hemorrhage, or, as Mr Warren suggests, "from consequent derangement of the stomach and intestines."

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APPENDIX.—On the 18th of September last, my friend, Mr Tickell, asked me to see with him Mrs P., a lady about thirty-eight years of age, residing in my neighbourhood. Mr Tickell had been attending her from the 6th inst. She suffered at first great pain in making water, and a very frequent desire to do it; her tongue was foul and her pulse rather quick, without other symptoms. Aperients were given, and a mixture of liq. potass, sp. æth. nit., tr. hyoscyam, and tr. opii. At the end of a week, during which time menstruation had come on, she was no better. Hip baths, aperient medicine, leeches to the urethra, and opiate suppositories, were now tried, with the same effect. The urine was examined and found to be alkaline, and to deposit a mucous sediment. The speculum vaginæ was used, and the uterus appeared healthy and in right position; a catheter was also passed. Both instruments gave much pain, as they pressed in passing against one part of the urethra, but no swelling could be discovered. On the 18th, when I saw the patient, she was no better. She suffered very severely in making water; there was marked tenderness at a point about midway between the orifice of the urethra and the bladder; but no swelling when examined by the finger in the vagina; no tenderness in the bladder itself, however freely the sound which I introduced was moved about; but at the part of the urethra felt to be painful in the vaginal examination, the sound also occasioned pain. She was taking infusion of buchu with dilute sulphuric acid. This was ordered to be continued, and a full-sized bougie to be passed, and worn as long as it could, daily. The passage of the instruments was persisted in for a week, increasing the size daily; it gave much pain, but by that time the patient was well. *The urine, however, had become healthy*, and it is probable that the affection was only due to a chronic inflammation of the mucous membrane of a portion of the urethra and neck of the bladder. I suspected at first a vascular excrescence, but nothing of the kind came away.

NOTE.—For further information on these tumours the reader is referred to the following sources, which have been brought under my notice since the foregoing essay was completed:—

Hosack on Sensitive Tumours of the Female Urethra, in the *American Journal of Medical Science*, vol. xxv, p. 509.

A Case, and Remarks by Dr Lever, in the *London Medical Gazette*, Jan. 9, 1846.

Theses, by MM. Bavoux and Asson, reviewed in the *Archiv. Gén. de Méd.*, fourth series, vol. ix., pp. 101 and 235.

